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LISTING OF THE CLAIMS

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2 CLAIMS

3 1. (currently amended) A transducer for detecting movement of an article mounted for movement  
4 in a plane, the transducer comprising:

5 the article;

6 a heater facing the plane of movement of the article and having a temperature dependent  
7 resistance; and

8 an edge defined in the article between regions of different thermal conductivity; wherein, as the  
9 article undergoes the movement, the edge moves relative to the heater producing a corresponding  
10 variation in heat loss from the heater and a corresponding variation in resistance of the heater,  
11 and wherein:

12 the article is mounted for translational movement in the plane;

13 the edge is located in a plane surface of the article;

14 the edge is rectilinear; and

15 the heater comprises an elongated body overlapping and extending parallel to the plane  
16 surface and perpendicular to the edge; and

17 the elongated body comprises a silicon cantilever having a doped resistive region formed  
18 therein.

19 2-6. (canceled)

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- 1 7. (currently amended) A transducer as claimed ~~claim 5~~ claim 1, wherein the edge is located on  
2 the periphery of the plane surface.
- 3 8. (currently amended) A transducer as claimed in ~~claim 5~~ claim 1, wherein the edge is formed as  
4 a step in the plane surface.
- 5 9. (currently amended) A movement detection system for detecting movement of an article  
6 mounted for movement in a plane, the system comprising: first and second transducers as  
7 claimed in ~~claim 5~~ claim 1 operative in opposite directions along a common axis of movement of  
8 the article in the plane.
- 9 10. (original) A movement detection system as claimed in claim 9, wherein the first and second  
10 transducers respectively face first and second parallel edges of the surface.
- 11 11. (currently amended) A movement detection system for detecting movement of an article  
12 mounted for movement in a plane, the system comprising: first and second transducers as  
13 claimed in ~~claim 5~~ claim 1 operative in orthogonal directions of movement of the article in the  
14 plane.
- 15 12. (original) A movement detection system as claimed in claim 11, wherein the first and second  
16 transducers respectively face first and second orthogonal edges of the surface.
- 17 13. (previously presented) A local probe storage device comprising: storage surface, local probe  
18 storage array having a plurality of tips facing the storage surface; a scanner for moving the  
19 storage surface relative to the array in a plane parallel to the array; and a movement detection  
20 system as claimed in claim 9 for detecting movement of the storage surface relative to the array.
- 21 14. (original) A transducer as claimed in claim 1, wherein the surface is mounted for rotational  
22 movement parallel to the heater about an axis of rotation.

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1 15. (original) A transducer as claimed in claim 14, wherein the edge is in the form of a side of a  
2 slot formed in the surface and extending radially from the axis of the rotation.

3 16. (original) A transducer as claimed in claim 14, wherein the surface comprises a spoke  
4 extending radially from the axis of rotation and the edge comprises a side of the spoke.

5 17. (currently amended) A method for detecting movement of an article mounted for movement  
6 in a plane, the method comprising:

7 locating a heater having a temperature dependent resistance to face the plane of movement of the  
8 article;

9 defining an edge in the article between regions of different thermal conductivity; and;

10 detecting variation in resistance of the heater corresponding to variation in heat loss from the  
11 heater as the edge moves relative to heater during movement of the article in the plane, and  
12 wherein;

13 the heater comprises an elongated body overlapping and extending parallel to the plane  
14 surface and perpendicular to the edge; and

15 the elongated body comprises a silicon cantilever having a doped resistive region formed  
16 therein.

17 18. (previously presented) A method as claimed in claim 17, wherein the edge is located in a  
18 plane surface of the article.

19 19. (currently amended) A method as claimed in claim 18, wherein the edge is rectilinear, and  
20 ~~wherein the heater comprises an elongated body overlapping and extending parallel to the plane~~  
21 ~~surface and perpendicular to the edge.~~

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1 20. (previously presented) A method, for detecting movement of an article mounted for  
2 movement in a plane, the method comprising: locating a heater having a temperature dependent  
3 resistance to face the plane of movement of the article; defining an edge in the article between  
4 regions of different thermal conductivity; and, detecting variation in resistance of the heater  
5 corresponding to variation in heat loss from the heater as the edge moves relative to heater during  
6 movement of the article in the plane, wherein the edge is located in a plane surface of the article,  
7 wherein the edge is rectilinear, and wherein the heater comprises an elongated body overlapping  
8 and extending parallel to the plane surface and perpendicular to the edge, and  
  
9 wherein the elongated body comprises a silicon cantilever having a doped resistive region formed  
10 therein.

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